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EXAMINER

JACOBS, LASHONDA T

ART UNIT PAPER NUMBER

2157

DATE MAILED: 03/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/604,199

Applicant(s)

JOYCE ET AL.

Examiner

LaShonda T. Jacobs

Art Unit

2157

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 February 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4, 6, 8-11, 13-22, 24-35, 37, 39-42 and 44-57 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6, 8-11, 13-22, 24-35, 37, 39-42 and 44-57 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

This Office Action is in response to Applicant's RCE Amendment filed on February 9, 2006.

Claims 1, 8, 14, 18, 22, 24-27, 32, 39, 45 and 49 have been amended. Applicants' newly add claims 53-57. Claims 1-4, 6, 8-11, 13-22, 24-35, 37, 39-42 and 44-52 are presented for further examination. Claims 53-57 are also presented for examination.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims **1-4, 6, 8-11, 13-22, 24-35, 37, 39-42** and **44-57** are rejected under 35 U.S.C. 103(a) as being unpatentable over Pickering et al (hereinafter, "Pickering", U.S. Pat. No. 6,493,695) of Barkan et al (hereinafter, "Barkan", U.S. Pat. No. 6,366,575) and in further view of Dezonno (U.S. Pat. No. 6,771,764)

As per claims **1** and **32**, Pickering discloses a method and machine-readable medium comprising:

- receiving task data indicating a plurality of tasks and agent data indicating a plurality of agents (col. 1, lines 19-44, col. 3, lines 1-20 col. 4, lines 66-67, and col. 5, lines 1-29);

Art Unit: 2157

- storing the task data and the agent data in a database system (col. 7, lines 32-44, and col. 8, lines 46-67); and
- assigning respective tasks of the plurality of tasks to at least one of the agents according to workflows (col. 7, lines 32-59; Pickering discloses a routing module that access a workforce management database to select an agent to handle tasks according to his/her or skills or experience. Thus Pickering discloses assigning respective tasks of the plurality of tasks to at least of the agents according to workflows according to Applicant specification page 4, lines 8-11 and page 5, lines 16-21.)

However, Pickering does not explicitly disclose:

- wherein the receiving of the of agent data includes receiving status messages from the plurality of agents each status message providing agent availability data.

Barkan discloses a system for establishing a telephone call between an outside telephone and an agent station including:

- wherein the receiving of the of agent data includes receiving status messages from the plurality of agents each status message providing agent availability data (col. 4, lines 22-34).

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated Barkan's teachings of a system for establishing a telephone call between an outside telephone and an agent station by allowing agents to send status messages to the call center to describe the state of his/her station in order to route customers to the next available agent in a timely and efficient manner. Thus, Pickering provides the motivation to combine by utilizing a system for handling a large volume of calls that would

Art Unit: 2157

allow call centers to handle all communications in a homogeneous way to thereby allow the call center to make optimum use of human resources.

Pickering in view of Barkan discloses the invention substantially as claims discussed above.

However, Pickering in view of Barkan does not explicitly disclose:

- determining a system overloaded condition; and
- reassigning a first agent from a first task to a second task responsive to the determining the system overloaded condition.

Dezonno discloses a method and apparatus are provided for reducing deviations between worked hours of the agent and a schedule of hours for the agent including:

- determining a system overloaded condition (abstract, col. 6, lines 12-25, lines 27-37 and col. 7, lines 5-9: Dezonno discloses determining if the call assignment threshold exceeds the determine metric); and
- reassigning a first agent from a first task to a second task responsive to the determining the system overloaded condition (col. 7, lines 31-44; Dezonno discloses switching a agent from a his/her task to another task when the agent call assignment threshold exceeds the determined metric. For example, Bill is work status is doing paperwork. The CPU determines to assign Bill to take calls if the queue length is larger than the maximum queue length threshold, then Bill is assigned to calls. Therefore, Dezonno discloses reassigning a first agent from a first task to a second task responsive to determining the system overloaded condition).

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined the teachings of Pickering in view of Barkan with

Art Unit: 2157

Dezonna's teachings of a method and apparatus for reducing deviations between worked hours of the agent and a schedule of hours for the agent by comparing a metric with the agent call assignment threshold in order to allow supervisors to coordinate call delivery to agents with the needs and work schedule of the agents.

As per claims **2** and **33**, Pickering discloses wherein the receiving of the task data comprises:

- receiving the task data from a plurality of sources (col.1, lines 19-44, and col. 5, lines 3-9).

As per claims **3** and **34**, Pickering discloses wherein the plurality of sources comprises:

- heterogeneous media switches (col.1, lines 19-44, and col. 5, lines 3-9).

As per claims **10** and **41**, Pickering discloses:

- at least one volatile memory database and at least one writable medium database (col.11, lines 50-67).

As per claims **11** and **42**, Pickering discloses:

- wherein the volatile memory database and the writable medium database are synchronized (col.7, lines 18-44).

As per claim **22**, Pickering discloses a system comprising:

- a blending engine coupled to a plurality of media switches such that the blending engine receives a task data from the plurality of media switches (col.7, lines 12-44);
- a plurality of agent workstations coupled to the blending engine such that the agent workstations provide agent data to the blending engine, and the blending engine provides a plurality of task assignments to the agent workstations (col.7, lines 12-44).

Art Unit: 2157

- a blending database coupled to the blending engine such that the blending engine and the blending database exchange the agent data and the task data (col.7, lines 12-44); and
- a workflow manager coupled to the blending database and the blending engine such that the workflow manager: access the blending database, executes workflows, communicates the plurality of task assignments to the blending engine (col.7, lines 12-44).

However, Pickering does not explicitly disclose the blending engine to receive the plurality of agent data comprises:

- status messages from the plurality of agents, each status message providing agent availability data.

Barkan discloses a system for establishing a telephone call between an outside telephone and an agent station including:

- status messages from the plurality of agents, each status message providing agent availability data (col. 4, lines 22-34).

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated Barkan's teachings of a system for establishing a telephone call between an outside telephone and an agent station by allowing agents to send status messages to the call center to describe the state of his/her station in order to route customers to the next available agent in a timely and efficient manner. Thus, Pickering provides the motivation to combine by utilizing a system for handling a large volume of calls that would allow call centers to a handle all communications in a homogeneous way to thereby allow the call center to make optimum use of human resources.

Pickering in view of Barkan discloses the invention substantially as claims discussed above.

However, Pickering in view of Price does not explicitly:

- determining a system overloaded condition; and
- reassigning a first agent from a first task to a second task responsive to the determining the system overloaded condition.

Dezonno discloses a method and apparatus are provided for reducing deviations between worked hours of the agent and a schedule of hours for the agent including:

- determining a system overloaded condition (abstract, col. 6, lines 12-25, lines 27-37 and col. 7, lines 5-9: Dezonno discloses determining if the call assignment threshold exceeds the determine metric); and
- reassigning a first agent from a first task to a second task responsive to the determining the system overloaded condition (col. 7, lines 31-44; Dezonno discloses switching a agent from a his/her task to another task when the agent call assignment threshold exceeds the determined metric. For example, Bill is work status is doing paperwork. The CPU determines to assign Bill to take calls if the queue length is larger than the maximum queue length threshold, then Bill is assigned to calls. Therefore, Dezonno discloses reassigning a first agent from a first task to a second task responsive to determining the system overloaded condition).

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined the teachings of Pickering in view of Barkan with Dezonno's teachings of a method and apparatus for reducing deviations between worked hours of the agent and a schedule of hours for the agent by comparing a metric with the agent call

assignment threshold in order to allow supervisors to coordinate call delivery to agents with the needs and work schedule of the agents.

As per claim **24**, Pickering discloses:

- each media switch comprises an adapter coupled to a media specific queue (col.1, lines 53-67, and col. 2, lines 1-7); and
- each media specific queue is coupled to the blending engine (col.7, lines 12-44).

As per claims **4**, **25**, and **35**, Pickering discloses:

- wherein each of the heterogeneous media switches is from a group consisting of electronic mail systems, internet live text systems, internet voice transmission systems, telephonic voice systems, telephonic facsimile systems, and voice mail systems (col. 1, lines 19-44, and col. 5, lines 3-9).

As per claim **26**, Pickering discloses:

- each agent workstation comprises a desktop helper (col.5, lines 52-67, and col. 10, lines 47-53); and
- each desktop helper is coupled to the blending engine via a blending engine queue (col. 7, lines 12-44).

As per claim **27**, Pickering discloses wherein the blending database comprises:

- at least one volatile memory database synchronized with at least one writable medium database (col.11, lines 50-67).

As per claim **28**, Pickering discloses:

- wherein the blending database stores a plurality of task entries and a plurality of agent entries.

As per claim 29, Pickering discloses:

- wherein the volatile memory database is a superset of the writable medium database (col.11, lines 50-67).

As per claim 30, Pickering discloses:

- wherein the volatile memory database stores a blending engine queue data and a plurality of media specific queue data (col.11, lines 50-67).

As per claim 31, Pickering discloses wherein to accesses the blending database comprises:

- reading the task entries and the agent entries (col. 8, lines 60-67).

As per claims 6 and 37, Pickering discloses the invention substantially as claims discussed above.

However, Pickering does not explicitly disclose:

- wherein the status messages designate either busy or available.

Barkan discloses a system for establishing a telephone call between an outside telephone and an agent station including:

- wherein the status messages designate either busy or available (col. 4, lines 22-34).

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated Barkan's teachings of a system for establishing a telephone call between an outside telephone and an agent station by allowing agents to send status messages to the call center to describe the state of his/her station in order to route customers to the next available agent in a timely and efficient manner. Thus, Pickering provides the motivation to combine by utilizing a system for handling a large volume of calls that would

Art Unit: 2157

allow call centers to handle all communications in a homogeneous way to thereby allow the call center to make optimum use of human resources.

As per claims 8 and 39, Pickering discloses the invention substantially as claims discussed above.

However, Pickering does not explicitly disclose:

- wherein the agent availability data comprises any one of the group including: whether the agent is busy, is available, accepts a first type of task, declines a second type of task and accepts a task responsive to the system overloaded condition.

Barkan discloses a system for establishing a telephone call between an outside telephone and an agent station including:

- wherein the agent availability data comprises any one of the group including: whether the agent is busy, is available, accepts a first type of task, declines a second type of task and accepts a task responsive to the system overloaded condition (col. 4, lines 22-34).

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated Barkan's teachings of a system for establishing a telephone call between an outside telephone and an agent station by allowing agents to send status messages to the call center to describe the state of his/her station in order to route customers to the next available agent in a timely and efficient manner. Thus, Pickering provides the motivation to combine by utilizing a system for handling a large volume of calls that would allow call centers to handle all communications in a homogeneous way to thereby allow the call center to make optimum use of human resources.

As per claims **9** and **40**, Pickering in view of Barkan discloses the invention substantially as claims discussed above.

However, Pickering in view of Barkan does not explicitly disclose:

- wherein the system overloaded condition is workflow defined.

Dezonno discloses a method and apparatus are provided for reducing deviations between worked hours of the agent and a schedule of hours for the agent including:

- wherein the system overloaded condition is workflow defined (abstract, col. 6, lines 12-25, lines 27-37 and col. 7, lines 5-9).

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined the teachings of Pickering in view of Barkan with Dezonno's teachings of a method and apparatus for reducing deviations between worked hours of the agent and a schedule of hours for the agent by comparing a metric with the agent call assignment threshold in order to allow supervisors to coordinate call delivery to agents with the needs and work schedule of the agents.

As per claims **13** and **44**, Pickering discloses the invention substantially as claims discussed above.

However, Pickering does not explicitly disclose wherein the assigning comprises:

- executing a task queued workflow responsive to receiving the task data; and
- executing an agent availability workflow responsive to receiving the agent data.

Barkan discloses a system for establishing a telephone call between an outside telephone and an agent station including:

- executing a task queued workflow responsive to receiving the task data (col. 6, lines 47-56); and
- executing an agent availability workflow responsive to receiving the agent data (col. 4, lines 22-34 and col. 6, lines 47-56).

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated Barkan's teachings of a system for establishing a telephone call between an outside telephone and an agent station by allowing agents to send status messages to the call center to describe the state of his/her station in order to route customers to the next available agent in a timely and efficient manner. Thus, Pickering provides the motivation to combine by utilizing a system for handling a large volume of calls that would allow call centers to handle all communications in a homogeneous way to thereby allow the call center to make optimum use of human resources.

As per claims 14 and 45, Pickering discloses wherein the executing the task queued workflow comprises:

- storing the task data as a task entry in the database system (col. 7, lines 32-44, and col. 8, lines 46-67);
- identifying the first agent of the plurality of agents to handle a first task of the plurality of tasks (col. 7, lines 49-63); and
- assigning the first agent the first task (col. 7, lines 49-63).

As per claims 15 and 46, Pickering discloses wherein the identifying comprises:

- searching the database system for an agent entry meeting defined criteria (col. 7, lines 18-44).

Art Unit: 2157

As per claims **18** and **49**, Pickering discloses wherein the executing of the agent availability workflow comprises:

- storing the agent data as an agent entry in the database system (col. 7, lines 32-44, and col. 8, lines 46-67);
- identifying the first task of the plurality of tasks to be handle by a first agent of the plurality of agents (col. 7, lines 49-63); and
- assigning the first task to the first agent (col. 7, lines 49-63).

As per claims **19** and **50**, Pickering discloses wherein the identifying comprises:

- searching the database system for a task entry meeting defined criteria (col.8, lines 46-67).

As per claims **16**, **20**, **47**, and **51**, Pickering discloses wherein the assigning comprises:

- notifying the first agent to handle the first task (col.7, lines 49-60); and
- receiving a response from the first agent either accepting or declining the first task (col.8, lines 46-67); and
- if the first agent accepts the first task, updating the database system (col.8, lines 46-67).

As per claims **17**, **21**, **48**, and **52**, Pickering discloses wherein the updating of the database system comprises:

- modifying the task entry and the agent entry (col.8, lines 60-67).

As per claim **53**, Pickering in view Barkan discloses the invention substantially as claims discussed above.

However, Pickering in view of Barkan does not explicitly disclose wherein the reassigning comprises:

Art Unit: 2157

- requesting the first agent to abandon the first task for the second task;
- receiving a response from the first agent either accepting or declining the second task;
- and
- if the first agent accepts the second task, assigning the second task to the first agent.

Dezonno discloses a method and apparatus are provided for reducing deviations between worked hours of the agent and a schedule of hours for the agent including:

- requesting the first agent to abandon the first task for the second task (col. 7, lines 32-39);
- receiving a response from the first agent either accepting or declining the second task (col. 7, lines 39-45); and
- if the first agent accepts the second task, assigning the second task to the first agent (col. 7, lines 39-45).

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined the teachings of Pickering in view of Barkan with Dezonna's teachings of a method and apparatus for reducing deviations between worked hours of the agent and a schedule of hours for the agent by comparing a metric with the agent call assignment threshold in order to provide a performance metric necessary to their goal thereby reducing the overall costs to the operator.

As per claim 54, Pickering in view of Barkan discloses the invention substantially as claims discussed above.

However, Pickering in view of Barkan does not explicitly disclose wherein the reassigning comprises:

- instructing the first agent to abandon the first task for the second task; and
- assigning the second task to the first agent.

Dezonno discloses a method and apparatus are provided for reducing deviations between worked hours of the agent and a schedule of hours for the agent including:

- instructing the first agent to abandon the first task for the second task (col. 7, lines 39-45); and
- assigning the second task to the first agent (col. 7, lines 39-45).

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined the teachings of Pickering in view of Barkan with Dezonno's teachings of a method and apparatus for reducing deviations between worked hours of the agent and a schedule of hours for the agent by comparing a metric with the agent call assignment threshold in order to provide a performance metric necessary to their goal thereby reducing the overall costs to the operator.

As per claim **55**, Pickering in view of Barkan does not explicitly disclose:

- wherein the first task requires the first agent to process email and the second task requires the first agent to process a call.

Dezonno discloses a method and apparatus are provided for reducing deviations between worked hours of the agent and a schedule of hours for the agent including:

- wherein the first task requires the first agent to process email and the second task requires the first agent to process a call (col. 7, lines 31-44; Dezonno discloses switching a agent from a his/her task to another task when the agent call assignment threshold exceeds the determined metric. For example, Bill is work status is doing

paperwork. The CPU determines to assign Bill to take calls if the queue length is larger than the maximum queue length threshold, then Bill is assigned to calls. Therefore, Dezonno discloses reassigning a first agent from a first task to a second task responsive to determining the system overloaded condition).

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined the teachings of Pickering in view of Barkan with Dezonno's teachings of a method and apparatus for reducing deviations between worked hours of the agent and a schedule of hours for the agent by comparing a metric with the agent call assignment threshold in order to allow supervisors to coordinate call delivery to agents with the needs and work schedule of the agents.

As per claim 56, Pickering in view of Barkan discloses the invention substantially as claims discussed above.

However, Pickering does not explicitly disclose:

- wherein the determining the system overloaded condition includes determining whether the volume of tasks has exceeded a predetermined level.

Dezonno discloses a method and apparatus are provided for reducing deviations between worked hours of the agent and a schedule of hours for the agent including:

- wherein the determining the system overloaded condition includes determining whether the volume of tasks has exceeded a predetermined level (abstract, col. 6, lines 12-25, lines 27-37 and col. 7, lines 5-9: Dezonno discloses determining if the call assignment threshold exceeds the determine metric).

Art Unit: 2157

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined the teachings of Pickering in view of Barkan with Dezonna's teachings of a method and apparatus for reducing deviations between worked hours of the agent and a schedule of hours for the agent by comparing a metric with the agent call assignment threshold in order to allow supervisors to coordinate call delivery to agents with the needs and work schedule of the agents.

As per claim 57, Pickering discloses wherein the defined criteria includes any one of the group including:

- elapsed time since a previous task was performed, a skill level in a business area, a skill level in a product area, a proficiency in a media, a fluency in a language, elapsed time since beginning work, elapsed time since taking a break (col. 7, lines 32-59).

Response to Arguments

3. Applicant's arguments with respect to claims 1-4, 6, 8-11, 13-22, 24-35, 37, 39-42 and 44-57 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LaShonda T. Jacobs whose telephone number is 571-272-4004. The examiner can normally be reached on 8:30 A.M.-5:00 P.M..


Art Unit: 2157

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on 571-272-4001. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LaShonda T Jacobs
Examiner
Art Unit 2157

ltj
March 3, 2006


ARIO ETIENNE
PRIMARY EXAMINER